Application No. 10/015,680

REMARKS

The Office Action of November 14, 2006 has been carefully considered. Reconsideration of this application, as amended, is respectfully requested. Claims 1 - 12 & 14 - 21 are pending in this application. Of these, Claims 1, 11, and 21 are independent. In this Amendment, Claims 1, 11 and 21 have been amended, no claims have been canceled, and no claims have been added.

35 USC § 102

Claims 1 - 21 have been rejected under 35 USC § 102(b) as being anticipated by Hogle, IV (5,923,307). In order for a rejection under 35 USC § 102(b) to be valid the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present.

The disclosures of the cited art and the distinctions between them and Applicant's claimed invention in the amended claims may be briefly summarized as follows:

Hogle IV teaches how to arrange multiple monitors in a logical space to form a contiguous, non-overlapping region.

Applicant's claimed invention (independent amended Claims 1, 11, and 21) is a system for displaying a perceived continuous image across two or more display areas, where each display area has a given resolution and pixel size and the resolution of at least one display area is substantially different than the resolution of the other display areas such that the pixel sizes of the two display areas are substantially different. The system utilizes an image replicator to associate image information with each display. A viewer is then used to transform the image information for each display such that when the images are displayed on their respective display areas the resulting displayed

image appears substantially continuous such that the sizes of the portions of the displayed images on each of the display areas appear to be substantially similar to a viewer situated to view the displayed image and the displayed resolution of at least one of the images on one display is substantially different from the displayed resolution of at least one other of the displayed images on another display.

Hogle IV does not, and indeed can not, scale an image to provide a continuous display with portions displayed in substantially different resolutions and pixel sizes while the sizes of the images remain substantially the same. In Hogle IV, the total displayable screen area or virtual screen area is determined as an aggregate of the number of pixels contained in each of the screen areas. Hence when a screen area changes its resolution (for instance becoming larger by going to a size with more pixels such as 1024x768, or smaller by going to a size with fewer pixels such as 800x600) then the total displayable portion must be recalculated to either remove the overlap in the logical space caused by the larger screen size or to remove gaps in the logical space caused by the smaller screen size (please see column 11, lines 48-59). The effect of this is that if screens of differing pixel sizes are placed next to each other in the logical display space while an image overlapping the two screens will be displayed across the two screens in the physical display areas and the image portions will be adjacent to each other, the entire image will not appear to be continuous as the portion of the image on the screen with the larger pixels will appear to be larger and the portion of the image on the screen with the smaller pixels will be smaller. The only way to provide a continuous image such that the sizes of the images remain the same is to only use screens having substantially the same resolution and pixel size. However, when this is done all images are displayed at the same resolution. Therefore, with Hogle IV your choice is to have either a perceived continuous image with the sizes substantially the same and with one resolution on all

displays or a discontinuous image with the sizes of the images varying and using different resolutions on different displays.

Figures 9(a) and 9(b) of Hogle IV illustrate the above. When the resolution of a display is changed the displayed image size changes. The resolution in Figure 9(a) of 1024x768 has a smaller pixel size than the resolution in Figure 9(b) of 800x600. As the exact same pixels are being displayed in both cases, the image appears larger in Figure 9(b) because the pixels are physically larger. The result in Hogle IV then is that if screens of differing pixel sizes are placed next to each other in logical space while an image overlapping the two screens is displayed across the two screens in the physical display space with the image portions adjacent to each other, the entire image will not appear to be continuous as claimed in Applicant's invention as the portion of the image on the screen with the larger pixels will appear to be larger and the portion of the image on the screen with the smaller pixels will be smaller. The only way to provide a continuous image such that the sizes of the portions of the display images on each of the at least two display areas appear to be substantially similar, as claimed in Applicant's invention, is to only use screens having substantially the same resolution and pixel size. However, when this is done all images are displayed at the same resolution. Therefore, with Hogle IV your choice is to have either a perceived continuous image with the sizes substantially the same and with one resolution on all displays or a discontinuous image with the sizes of the images varying and using different resolutions on different displays.

To illustrate Applicant's invention please turn to Figure 2 of Applicant's disclosure along with the description contained on pages 12 and 13 of Applicant's specification. Figure 2 clearly shows an image of the letter "k" across two areas having different resolutions and pixel sizes. The portion of the image displayed in the area having the larger pixel size is referred to as

the context area, while the portion of the image displayed in the area having the smaller pixel size is referred to as the focus area. The specification clearly points out that "if the image in the focus area were either enlarged or reduced relative to the image displayed in the context area this would ... introduce discontinuities in the [displayed] image." Figure 2, is the illustration of Applicant's claimed invention wherein image portions of a source image are provided to two or more display areas and are scaled such that when the image portions are displayed on the two or more display areas the resulting displayed image appears substantially continuous such that the sizes of the portions of the display images on each of the at least two display areas appear to be substantially similar to a viewer situated to view the image and the displayed resolution of at least one other portion of the source image is substantially different from the displayed resolution of at least one other portion of the source image.

The Office Action states "Hogle clearly teaches the display of a single image across two or more display areas which are capable of displaying in multiple different resolutions". However, Hogle IV does not teach maintaining a continuous Image such that the sizes of the portions of the display images on each of the at least two display areas appear to be substantially similar to a viewer situated to view the image and the displayed resolution and pixel size of at least one portion of the source image is substantially different from the displayed resolution and pixel size of at least one other portion of the image, as claimed by Applicant in the amended claims, but rather allows discontinuities of image introduced by varying pixels sizes and instead performs the much simpler adjustment of locating the displays in logical space to form a contiguous and non-overlapping region of display space. The only way to provide a continuous image, as claimed by the Applicant, is to only use screens having the same pixel size. However, when this is done all images are displayed at the same resolution. Therefore, with Hogle IV your choice is

to have either a perceived continuous image with the sizes substantially the same and with one resolution on all displays or a discontinuous image with the sizes of the images varying and using different resolutions on different displays.

This is quite different from Applicant's claimed invention in the amended claims which seeks to make use of displays with varying resolution capabilities and preserve a continuous image such that the sizes of the portions of the display images on each of the display areas appear to be substantially similar to a viewer situated to view the image and the displayed resolution of at least one image on one display is substantially different from the displayed resolution of at least one other image on another display by appropriately transforming the images for each of the displays.

The examiner further contends that "in interpreting the claims in a broad and reasonable manner...in a situation where the monitors displaying the spanned image have resolutions that are not equal but produce pixel sizes of almost negligible difference...the spanned images will most certainly appear to be 'substantially similar' to a viewer".

However, this is not what applicants amended claims cover. In the claimed invention the display resolutions are substantially different such that the pixel sizes are also substantially different and yet the images sizes still appear to be substantially similar to a viewer so that a substantially continuous image is maintained.

Therefore, as transforming the images to provide a continuous image such that the sizes of the portions of the display images on each of the display areas appear to be substantially similar with at least one portion displayed in a substantially different resolution with a substantially different pixel size is not taught nor is it inherently present, each and every element is not taught and Hogle IV does not meet the requirements of a valid rejection under 35 USC § 102. Applicant therefore requests that the rejection be removed and submits that Applicant's independent claims 1, 11, and 21 are now in a condition for allowance. Applicant respectfully requests that the claims be allowed.

Insofar as claims 2 – 10, 12 and 14 - 20 are concerned, these claims all include the limitations of and depend from now presumably allowable claims 1 or 11 and are also believed to be in allowable condition for the reasons hereinbefore discussed with regard to claims 1 and 11 above.

Reconsideration/Admittance Requested

In view of the foregoing remarks and amendments, reconsideration of this application and allowance thereof are earnestly solicited.

Fee Authorization And Extension Of Time Statement

A three month Extension of Time is believed to be required for this amendment. The undersigned Xerox Corporation attorney (or agent) hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Corporation Deposit Account No. 24-0025.

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In the event the Examiner considers personal contact advantageous to the disposition of this case, he/she is hereby authorized to call Nola Mae McBain, at Telephone Number 650-812-4264, Palo Alto, California.

Respectfully submitted,

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Date: May 11, 2007